

# **ATTACHMENT 1**

## **PERFORMANCE WORK STATEMENT**

### **TECHNICAL AND ADMINISTRATIVE SUPPORT FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S NATIONAL DRINKING WATER PROGRAM CONTRACT: 68HERC20D0023**

#### **A. OVERVIEW**

The National Drinking Water Program implements the Safe Drinking Water Act (SDWA) that established a mandatory national program in 1974 to protect public health through drinking water safety. The program is a key contributor to one of the United States Environmental Protection Agency's (EPA) stated primary goals – Clean and Safe Water. By ensuring public water systems nationwide meet national standards, the public's exposure to contaminants in drinking water is reduced, and public health is protected. The Act requires EPA to identify drinking water contaminant candidates and to gather information on these contaminants to assess whether they require regulation. The Act also requires EPA to regulate contaminants that present health risks, are known to, or are likely to, occur in public drinking water supplies and that present a meaningful opportunity for health risk reduction. EPA is also required to review existing regulations every six years and revise as appropriate.

The EPA Office of Water (OW) and specifically OW's Office of Ground Water and Drinking Water (OGWDW), is responsible for the National Drinking Water Program. Environmental statutes with direct and indirect impacts on this program include the Safe Drinking Water Act (SDWA), the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA) as amended, the Comprehensive Environmental Response, Compensation, and Liability Act of 1986 (CERCLA), Clear Air Act (CAA), Federal Insecticide, Fungicide and Rodenticide Act of 1988 (FIFRA) and the America's Water Infrastructure Act (AWIA). OGWDW also participates in multi-media program activities conducted by several other EPA offices.

EPA requires contract support to assist its efforts in developing and implementing regulations. This Performance Work Statement (PWS) identifies the full range of contract support required. Individual Task Orders (TO) will define and describe the details of the government's requirement during contract performance. In addition, each TO will provide the government's estimate of professional labor hour requirements; present critical milestones, schedules and work products; describe project specific quality assurance and travel requirements; and identify contacts and other resources that will assist the contractor in accomplishing the work.

## **B. PERFORMANCE WORK STATEMENT**

The contractor shall provide technical and analytical support for contaminant occurrence, cost/benefit, economic, financial, and regulatory analyses, along with characterization of potential limitations of those analyses. The contractor shall provide technical and analytical support for environmental and analytical chemistry, primary and secondary environmental data collection, statistics, engineering, hydrology, hydrogeology, public health and risk assessment, system analysis, cost and benefit assessments, database management, Geographical Information Systems (GIS), and microbiology relating to the requirements of the Safe Drinking Water Act (SDWA) Amendments. The contractor shall also provide support for development of standards, criteria, and program mandates being considered by the Agency relative to the requirements of the SDWA Amendments and other statutes (such as Small Business Regulatory Enforcement Fairness Act (SBREFA) and Unfunded Mandates Reform Act (UMRA) already in place. EPA will review the information for technical soundness and adherence to Agency policy. Additionally, the contractor shall provide administrative program support in areas of information management, outreach, technical writing and coordination of logistics.

The contractor shall supply all necessary labor, materials, equipment and facilities in technical support of the program areas included herein, and as further specified by written TOs issued by the Contracting Officer (CO). The contractor shall perform multiple TOs concurrently, and at times the TOs will be of a quick response nature.

Each initial deliverable shall be provided to the EPA in draft form for review. The contractor shall incorporate necessary procedures to ensure that these drafts completely document the methodologies, use appropriate assumptions and data, are accurate and complete, and are as specified in the TO before providing them to the EPA. The contractor shall incorporate comments, as directed by the EPA Contracting Officer's Representative (COR) into revisions of the drafts. All drafts and final deliverables shall be approved by the EPA COR. The EPA COR/TOCOR reviews all contractor products related to Agency regulations and policy development.

The contractor shall perform all services under this contract in accordance with approved Agency requirements. If there is a need to deviate from the technical approach approved under the contractor's work plan, the contractor shall contact EPA immediately. All confidential business information (CBI) shall be handled in accordance with appropriate Agency CBI requirements and potential conflicts of interest shall be identified before starting work. The contractor's personnel shall always identify themselves as contractors whenever their EPA work brings them in contact with the public. The contractor's staff shall always wear and clearly display identification badges when interacting with the public. When attending meetings and conferences, the contractor's staff shall only attend the portion of the session that is relevant to their technical role. If required to provide instructional assistance, the contractor shall only use materials approved in advance by EPA. The contractors shall not interpret Agency policy for any outside party. The contractor will not be tasked to perform inherently governmental activities. All data collected under this contract will be done in accordance with OMB Paperwork Reduction Act guidelines and shall not be released without the written approval of

EPA. All work shall be performed in accordance with contract level quality assurance and where identified by EPA, TO specific quality assurance requirements.

The contract may be used, with OGWDW's permission, by related organizations in the Office of Water, and by other parts of EPA, when those organizations require technical support within the scope of this PWS. The contractor shall collect data and materials and provide factual studies of a technical, scientific, engineering, or statistical nature. The contractor shall also provide administrative support in accordance with specific written TOs to support the Agency's development of drinking water regulations, regulations review and revision, future regulatory and programmatic decisions, and implementation of its policies and programs. The services to be performed are limited to technical/analytical and administrative support efforts which are within the scope of this PWS.

## **C. PERFORMANCE WORK STATEMENT**

### **1.0 REGULATORY DEVELOPMENT, REVIEW AND REVISION**

The contractor shall provide technical expertise and support to EPA for the development, review and revision of regulations that set the legal limits on the levels of certain contaminants in drinking water. The legal limits reflect both the level that protects human health and the level that water systems can achieve using the best available and affordable technology. To support EPA regulatory development activities, the contractor shall provide assistance in the following areas:

#### **1.1 Analytical Methods and Laboratory Support**

The contractor shall provide technical support in the development of analytical methods and performance criteria for treatment/occurrence studies and for compliance monitoring, and in the evaluation of new analytical methods, including screening methods, to meet the criteria. The contractor shall perform the following tasks:

1.1.-1 Analyze water samples identifying contaminants and contaminant concentrations-in accordance with procedures detailed in the specified analytical methods provided by EPA. All procedures specified in the methodology must be followed as detailed in the provided analytical method unless prior approval to deviate has been granted in writing by EPA. Laboratories shall not deviate from the analytical methods provided, without first obtaining written permission from the EPA. Data for all sample analyses (e.g., field sample, spiked sample, laboratory fortified blank, continuing calibration results, etc.) are to be reported electronically to EPA. The contractor shall concurrently report to the EPA all data for a specific array of samples, collected from an individual Public Water System, for a specific collection event.

1.1. 2 Support EPA efforts to further protect public health against chemical,

microbial and radiological contaminants in drinking water. In order to support public water systems monitoring, EPA requires the following: (1) providing guidance and training to laboratory and field personnel to ensure proper sampling and analysis techniques; (2) evaluating new methods and/or techniques which have not yet been published in the Federal Register which are developed by vendors and laboratories to promote better, faster, or cheaper ways of analyzing samples, while maintaining data quality; and (3) designing and conducting analytical studies to answer specific EPA questions or method issues.

## **1.2 Identification of Potential Drinking Water Contaminants**

- 1.2.1 The contractor shall search EPA, federal, state, non-governmental organization, institutions, academic and private sector databases dealing with reported occurrences, adverse health effects, environmental release, sources of contaminants, and use and disposal patterns of chemicals, in order to identify potential contaminants in source water and drinking water supplies. Such databases include but are not limited to Safe Drinking Water Information System (SDWIS), Federal Reporting Database System (FRDS), and Enforcement and Compliance History Online (ECHO).
- 1.2.2 The contractor shall conduct literature searches and reviews, consult with state and federal agencies, and interview researchers in the field to identify potential contaminants of health concern, sources of contaminants, contaminant fate and transport mechanisms, and associated levels of source water and drinking water contamination.

## **1.3 Geographic Matching of Contaminants, Production Sites and Release Sources**

- 1.3.1 Review the geographical coverage of data (e.g., production and release quantities of chemical, radiological, and microbiological contaminants) and identify contaminants that are of national, regional, local, system and watershed-specific concern. EPA shall place special emphasis on assessing threats to drinking water.
- 1.3.2 Identify areas where certain land uses pose an elevated risk of contaminants entering drinking water sources.
- 1.3.3 Evaluate contaminant case studies relating to contaminant occurrence and/or co-occurrence to assess the types of watersheds/aquifers which might be vulnerable to contamination. Emphasis shall be placed on contaminants that co-occur and share common/additive adverse health effects. The contractor shall use the following sources of information in this work area: existing databases, data collected by state and federal

agencies, literature reviews, and consultation with researchers and other appropriate persons. The contractor shall utilize, as required, Geographical Information Systems (GIS) in evaluating and mapping contaminant sources and sites.

**1.3.4 Treatment and Occurrence Studies**

Provide technical support for the following activities: 1) designing and implementing studies to assess contaminant occurrence/co-occurrence and system vulnerability relating to both source waters and finished drinking water; 2) developing and testing compliance strategies, including both monitoring and non-monitoring approaches; 3) designing and performing studies to assess treatment effectiveness and impact of treatment under various conditions; 4) developing and testing compliance strategies for systems with co-occurring contaminants with common adverse health effects but competing treatment technologies. Treatment studies could be bench-, pilot-, or full-scale, or a combination of the three. The contractor's reports shall include, but are not limited to, characterization of treatment effectiveness and capital and operations and maintenance cost.

1.3.5 Design surveys use advanced statistical concepts to analyze existing data in accordance with EPA's Survey Management Handbook <http://www.epa.gov/ipbpages/index.htm>. Statistical problems may include combining data from multiple sources to assess national distribution patterns of contaminant occurrence and developing models to extrapolate contaminant occurrence review reporting levels.

1.3.6 Provide technical assistance including: statistical analysis to provide a basis for sampling frequency, timing, selection of analytical methods etc.; and the provision of equipment logistics, staff and laboratory capacity-

**1.4 Modeling of Chemical, Radiological, and Microbiological Contaminant Occurrence, Removal, Fate and Transport**

1.4.1 Review previously published models for contaminant occurrence/co-occurrence, formation, and transport in source water, water treatment plants and distribution systems, to facilitate the development of new models or the modification of existing models.

1.4.2 Calibrate, verify, and document new and existing models. Documentation shall include a description of the model, its underlying assumptions and limitations, and instructions on how to use it.

**1.5 Development of Vulnerability Criteria for Drinking Water Systems**

1.5.1 Collect and analyze data in both sources of drinking water and finished drinking water, review case studies, develop monitoring strategies, and if

necessary perform monitoring, to support EPA in developing and testing criteria to be used by drinking water systems to determine their vulnerability to chemical, radiological and/or microbiological contaminants and their co-occurrence.

- 1.5.2 Document assumptions made, sources used, conceptual methodological choices applied, and data selection criteria. The contractor shall base the vulnerability criteria on the concepts of correlating source water contamination with hydrology, hydrogeology, climate, land use, sources of contaminants, fate and transport mechanisms of the contaminants and surrogate indicators, and previous monitoring results.
- 1.5.3 Identify sources of information (including existing relevant databases and GIS); retrieve, combine, and analyze information; and provide other technical support necessary to develop and test the application of the criteria vulnerability.
- 1.5.4 Collect and analyze information from public water systems, including compliance monitoring information (from SDWIS and other available databases) concerning the occurrence/co-occurrence of contaminants currently regulated under the SDWA. EPA will use this information in developing risk factors associated with different degrees of contamination and as a basis for any modifications in the monitoring and treatment requirements for vulnerable systems.

## **1.6 Risk Assessment of Drinking Water Contaminants**

Provide information and technical support to EPA's assessment of risk associated with exposure to chemical, radiological, and microbiological contaminants in drinking water, and in conducting analysis using applicable risk assessment methods. The contractor shall perform the following tasks:

- 1.6.1 Quantify risk estimates and address their uncertainty based on health assessments and occurrence data. The contractor shall perform quantified risk assessments of potential environmental and human health risk from exposure to various types of contaminant occurrence/co-occurrence and provide the data for estimating geographic or temporal distribution of contaminants occurrence/co-occurrence.
- 1.6.2 Conduct national risk assessments for drinking water sensitive sub-populations. EPA will use the information to analyze potential risk reduction that can result from implementation of various regulatory options. The contractor shall conduct the risk assessments in accordance with Agency guidance which shall be provided to the contractor.

## **1.7 Assessing Exposure to Drinking Water Contaminants**

Provide technical assistance in developing contaminant exposure assessments for specified contaminants. EPA will use this information to develop regulatory impact analyses and in making decisions on which contaminants should be considered for future regulation. The contractor shall perform the following:

- 1.7.1 Develop exposure assessments that take into account differences in population subgroups (including sensitive sub-populations) and factors that affect the contaminant levels to which they are exposed. The contractor shall perform exposure assessments at the national level. In developing the population exposure assessments, the contractor shall perform such tasks as evaluation and statistical analysis of contaminant monitoring data and indicators of exposure (e.g., serological studies). The contractor shall provide estimates of contaminant levels at the tap (including contaminant modeling); characterization of population exposed to various groups of contaminants (in terms of size, susceptibility and other relevant factors) with common/additive health effects; estimates of relative source contributions of the contaminant (e.g., food vs. drinking water); evaluation of factors that affect exposure, uncertainty analysis and/or verification of exposure estimates; and analysis to explain differences between model estimates and epidemiological data.
- 1.7.2 Collect relevant data and information; critical evaluation of information, integration of this information into the exposure assessment; statistical analysis and mathematical modeling; and mapping of relevant exposure factors.

## **1.8 Evaluation of Drinking Water Treatment/Contamination Control Technologies**

- 1.8.1 Provide technical support in developing treatment technique requirements by reviewing Best Available Technology (BAT) for large systems and in designating compliance and variance technologies for small systems. Technical support includes evaluation of the following: various treatment and contamination control technologies to remove or inactivate or prevent intrusion of various drinking water contaminants or groups of contaminants; ancillary processes; non-treatment alternatives; and operational and management factors that affect treatment efficacy. Treatment technologies include: chemical, physical and biological unit processes, chemical addition, and control of source water quality. Ancillary processes include but are not limited to: disinfectant residual management and disposal, and backwash water treatment. Non-treatment alternatives include consolidation of drinking water systems and alternative drinking water sources.

- 1.8.2 Evaluate the effects of different design parameters, operating and control conditions, and different process configurations and combinations. In the case of source water controls, the contractor shall evaluate different watershed and water storage conditions. In evaluating a treatment process, the contractor shall also consider whether it results in the formation of adverse byproducts, its compatibility with and impact on other treatment processes, and other simultaneous compliance issues.
- 1.8.3 Evaluate the degree of operational complexity of a central treatment process and compliance strategies relative to Point of Use (POU) and Point of Entry (POE) devices to support EPA in determining if it is feasible for use by small systems.
- 1.8.4 Provide technical support to EPA efforts to develop measures of treatment efficacy. These technical support requirements shall include: engineering design of typical model plants and plant upgrades (including retrofits), comprehensive performance evaluations of water systems, development of operating and management control, criteria to meet treated water goals, critical expert review and evaluation of studies and literature, development and use of computer treatment models, and statistical analysis of treatment data and treatment reliability.

**1.9 Estimate Capital, Operations and Maintenance Costs of Drinking Water Contamination Control-Technologies and Underground Injection Control (UIC) Well Requirements**

- 1.9.1 Provide information and data required for EPA's assessment of the initial and replacement capital costs and associated operation and maintenance of drinking water treatment technologies and UIC well requirements over various specified periods. This information may be based on pilot-or bench-scale as well as full-scale technologies or it may be facility-or system- specific.
- 1.9.2 Provide technical assistance in estimating the cost of water treatment techniques, process operation, and plant management. Estimates may include the costs of retrofitting technology and changes in operations; costs associated with controlling various groups of contaminants with competing treatment technologies, residuals management and disposal; backwash water treatment and disposal; source water control; and any other costs associated with regulatory compliance or improving drinking water quality. The contractor shall provide and use statistical analyses of various data in the national cost models. The contractor shall calculate cost estimates for regulatory impact analysis for typical model treatment plants. EPA will use the estimates in the development of regulatory impact analyses and affordability criteria.



- 1.9.3 Provide engineering and economic support to calculate the expected effect of the treatment costs on the cost of water rates for plants in different size, ownership, and other relevant categories. The contractor shall provide the following types of technical assistance for this task: collection of cost data; design of surveys to collect/verify cost data; critical evaluation of cost data; development/revision and use of cost curves and models for different size systems; statistical analysis associated with establishing the validity of cost estimates and their uncertainty; and the synthesis of information on treatment efficacy, water quality, cost and other relevant data in the development of a decision tree for analyzing different regulatory options.

#### **1.10 Analyze Regulatory Alternatives and Impacts**

- 1.10.1 Characterize various industries and industry segments by type, size, number of facilities, and by such financial characteristics as industry, sales, revenues, profits margins, types of products, price information, employment information, and other pertinent data.
- 1.10.2 Design survey instruments for the collection of technical, economic and financial data necessary to assist in EPA's assessment of current status of the industry, EPA's development of potential regulatory options, and the regulatory impacts of those options on the regulated community.
- 1.10.3 Evaluate the financial, technical and managerial capabilities of water systems; the water industry; other industries affected by Federal drinking water regulations; and state, tribal and municipal governments.
- 1.10.4 Provide information and data which is required by the Agency to make an assessment of the cost and affordability of compliance with various regulatory options and the total costs of complying with all the SDWA regulations. The sources of information will include data provided by facilities or systems, secondary sources, or estimates collected by EPA, industry associations, States, academia, and other sources.
- 1.10.5 Characterize drinking water systems by design and average flow, compliance status, population served, source water type, primary type of treatment (softening, conventional filtration, slow sand filtration, etc.), primary and secondary disinfection, and other characteristics that are relevant in developing a regulatory impact analysis, and define relationships between these characteristics. The contractor shall prepare analyses that include a determination of baseline from which to calculate cost for required upgrades and determination of suitable model systems which represent characteristics of public water systems.

## **2.0 POLICY AND PROGRAM IMPLEMENTATION**

The contractor shall provide technical expertise and support for developing policy relevant to implementation of the Office of Ground Water and Drinking Water's regulatory program. The contractor shall provide technical support in the following areas:

### **2.1 Policy and Program Implementation Support**

- 2.1.1 **Gathering and Presenting Data/Information:** The contractor shall collect, compile and analyze data that will support EPA's analysis of technical issues and options for alternative regulatory approaches including those related to source water protection strategies. Using sound scientific, environmental planning, and engineering principles, the contractor shall produce technical information in areas such as chemistry, environmental science, environmental engineering, and hydrogeology. Typical outputs will include: technical reports, studies and option and issues papers. With all such outputs, the contractor shall provide the assumptions made, the list of data sources used and/or considered, and methodological choices made both conceptually and in data selection. In addition, for any data/information generated by a third party, the contractor shall provide documentation of quality assurance and quality control measures applied.
- 2.1.2 **Performing Fact-Finding Studies:** The contractor shall develop methods and protocols for gathering information that shall be submitted to EPA for approval. The contractor shall also gather data and information and compile it according to a framework approved by EPA. The contractor shall include the assumptions made, sources used and methodological choices made both conceptually and in data selection.
- 2.1.3 **Supporting OGWDW's Conduct of Policy and Legislative Analysis:** The contractor shall collect, compile and analyze data to be used by EPA in the formation of policy relating to drinking water and in the coordination of drinking water issues with other environmental programs. Outputs shall include: technical reports, option papers, and issue papers. The contractor shall include the assumptions made options considered, sources used and reasons for choices made both in source and data selection. In addition, for any data/information generated by a third party, the contractor shall provide documentation of quality assurance and quality control measures applied.
- 2.1.4 **Preparing Technical Guidance Materials:** Prepare technical guidance and training relevant to EPA drinking water regulatory implementation. The purpose of this training is to ensure consistent implementation of EPA regulations and policy. Guidance and training may cover regulatory requirements, analytical methods, and engineering or management practices. The targeted audience shall include EPA regions, state and

local government agencies, tribes, utilities and laboratories. The contractor's support shall include developing training materials, conducting sessions recommending technical experts, arranging logistics, and soliciting and evaluating feedback. All manuals, technical documents, and outreach materials shall be submitted to EPA in draft for approval prior to dissemination or use.

- 2.1.5 Implementation Support: Support EPA's implementation of drinking water regulations by conducting analyses, responding to inquiries, developing tracking systems and developing and revising review protocols. The contractor shall process and review submissions from drinking water utilities according to EPA established procedures. The contractor shall enter into the specified data tracking system all decisions made. EPA will run reports from the tracking system on a regular basis to check progress of decisions. The contractor shall review assigned submissions to determine if it meets EPA's approval criteria. The contractor shall indicate the process used and the assumptions and decisions made throughout the review process. The contractor shall follow up with water utilities as necessary and provide EPA with reports of approval recommendations.

## 2.2 Cross-Media and Cross-Program Analysis

- 2.2.1 Cross-Media and Cross-Program Analysis: The contractor shall conduct analyses in support of EPA's emphasis on a multi-media approach to regulating air, water, solid and hazardous waste, and source water protection as it relates to regulating drinking water. The contractor's analyses shall consider cumulative exposure from various routes in addition to ingestion (e.g., inhalation or dermal) from drinking water, and potentially other media. The contractor shall provide data to EPA so that the conclusions and recommendations can be assessed to assure their technical and scientific soundness. Based on a review of the analyses, the contractor shall provide data to be used by EPA to: (1) determine the appropriate identification of pollution prevention opportunities; (2) determine the extent to which the potential control options result in transferring pollutants from one medium to another; and (3) assess the potential impacts of regulatory or programmatic options being considered by other program offices.

## 2.3 Expanded Program Authority under the Safe Drinking Water Act

### 2.3.1 Statutory Requirements, Regulatory Authority and New Program Initiatives

The contractor shall perform technical and administrative tasks in support of OGWDW's assessment and implementation of expanded program authority that resulted from legislative mandates and new program

initiatives. The contractor's support shall include conducting analyses, developing strategies and options; drafting guidance and procedural documents; conducting pilot-studies; statistical computation; economic and financial analyses; resource assessments; and management models.

#### 2.3.2 Legislative Analysis

The contractor shall support EPA's evaluation of newly proposed and expanded programmatic authority and initiatives. EPA's evaluation will assess environmental benefits and potential impacts on Agency resources. The contractor's support shall include: collecting information and conducting cost/benefit analyses; conducting Regulatory Impact Analyses (RIAs) and regulatory flexibility assessments; developing Information Collection Request (ICR) documents; assessing environmental equity issues on small business impacts, evaluating "green" practices and responding to technical comments on proposed new regulations.

#### 2.3.3 Strategic Development

The contractor shall develop recommendations and options for EPA decision-making, on efficient and effective methods for implementing program expansion and new initiatives. This will include developing programmatic resource models; developing options for reducing procedural and paperwork burdens; assessing the effects of new and/or expanded regulations on program requirements, and surveying customers and stakeholders.

#### 2.3.4 Implementation

The contractor shall provide technical and administrative support, to include options, analysis, recommendations, and materials necessary to effectively implement and manage expanded program options or responsibilities. This will include developing guidance and technical assistance promoting stakeholders' capacity building, including but not limited to, the compilation of reports, brochures, electronic media, or other communication most appropriate to compile, assess, and disseminate program ideas or information.

### **3.0 INFORMATION MANAGEMENT AND TECHNOLOGY TOOLS**

- 3.1** Information Management: Information is a critical component to the regulatory development effort outlined under this PWS. The contractor's support to EPA will involve collecting, compiling, organizing and analyzing information that is primarily available from existing sources such as federal, state and local government agencies, tribes and public databases. Such databases include but are not limited to the Information Collection Request (ICR) Federal Database, the Community Water System Survey (CWSS), SDWIS, and the Unregulated Contaminant Monitoring Rule (UCMR) Database. Using information from these existing data sources, the contractor shall develop regulatory and economic impact assessments and other technical analyses that will be factors in Agency

decision-making.

### 3.1.1 Technical Review Study Reports

3.1.1.1 The contractor shall review study reports and evaluate the soundness of the technical/scientific approach or methodology used to develop the studies.

3.1.1.2 The contractor shall evaluate the accuracy and transparency of the data, and the analysis and the conclusions included in the report.

### 3.2.1 Review and Analysis of Public Comments

3.2.1.1 Collect and compile stakeholder comments on proposed regulations, policy, guidance, strategies and technical documents and organize by categories identified by EPA.

3.2.1.2 Analyze stakeholder comments and prepare draft responses to technical issues identified by EPA. The contractor shall not respond to or address comments that require interpretation of Agency regulation, policy or guidance.

3.2.1.3 Collect, compile and analyze stakeholder comments, and as identified by EPA, prepare reports, issue papers and briefing materials.

### 3.2.2 Programmatic Data Analyses

3.2.2.1 Technology Transfer Assistance: The contractor shall support EPA's preparation and presentation of materials, including talking points, audiovisual materials, foreign language translations and documents for Internet posting.

3.2.2.2 The contractor shall develop and maintain databases/tracking systems to store a variety of technical, environmental, statistical, and financial information to support development and implementation of regulations or financial analysis.

3.2.2.3 The contractor shall support EPA in conducting surveys including designing surveys and questionnaires, data collection, statistical analysis, and reporting of results. All surveys shall be in accordance with OMB Information Collection Request (ICR) requirements and EPA data security requirements and the EPA's Survey Management Handbook  
<http://www.epa.gov/ipbpages/index.htm>

3.2.2.4 The contractor shall support EPA's response to Freedom of Information Act (FOIA) requests by compiling and summarizing

publicly available information from Agency files, data and records. The contractor shall provide this information to EPA for distribution and will not be required to prepare or distribute the Agency's response.

3.2.2.5 Ensure that all appropriate support materials are placed in the docket in accordance with schedule requirements. This includes obtaining appropriate reference materials, developing a list of all reference materials, tracking materials and checking references for completeness and legibility.

3.2.2.6 The contractor shall provide data input services including word processing and data entry.

### 3.2.3 Technical Peer Review

The contractor may be required to provide peer review of documents or products developed by EPA. The contractor is precluded from peer review of documents or products that they developed or assisted in developing. If the peer review service is required, it will be identified in the applicable task order. The number of reviewers required and their qualifications will also be specified in the task order. These qualifications may be expected to vary with the technical nature of the product. In addition, necessary travel expenses to perform the peer review service will be reimbursed under the applicable Task Order. It is the responsibility of the contractor to ensure that all peer reviews are conducted in a manner to avoid all actual, potential, or apparent conflicts of interest. It is also the responsibility of the contractor to submit conflict of interest certifications consistent with contract requirements including the Section H local clause EPA-H-09-110. The contractor shall submit peer review written comments, with all supporting materials, such as additional references or suggested approaches, to the EPA COR/TOCOR for EPA preparation of final review and recommendations to EPA authors. The contractor shall also be available to clarify any peer reviewer comments and recommendations. All peer reviews shall be conducted in accordance with the EPA's Science and Technology Policy Council Handbook on Peer Review, 4<sup>th</sup> Edition or the most current rendition of that handbook. The Handbook can be found electronically at the EPA website [https://www.epa.gov/sites/production/files/2016-03/documents/epa\\_peer\\_review\\_handbook\\_4th\\_edition.pdf](https://www.epa.gov/sites/production/files/2016-03/documents/epa_peer_review_handbook_4th_edition.pdf).

3.3 Technology Tools: To effectively perform the work outlined in the PWS, the contractor shall develop information technology solutions to manage the large quantity of data and information that will be compiled and analyzed in the performance of this PWS. The work in this task cross-cuts all elements of the PWS. The contractor will not be tasked with developing information

management systems. While the contractor will not be required to develop or maintain agency information management systems, the contractor will be tasked with developing software applications created using commercially available EPA standard software. Any application created by the contractor shall be designed, developed and maintained in accordance with EPA information resource management policies. Data sets and analysis software and documentation shall be accessible to the EPA and shall be provided to the EPA upon expiration of the contract.

### 3.3.1 Programmatic Technology Tools

The contractor's support shall include the following:

- 3.3.1.1 Provide recommendations and/or develop information technology solutions designed to efficiently and systematically manage data.
- 3.3.1.2 Develop and update user guidance and other instructional materials for EPA software applications.
- 3.3.1.3 Develop electronic forms and applications for transmission of data required by the program areas covered in the PWS.
- 3.3.1.4 Develop and maintain mailing lists of program stakeholders.
- 3.3.1.5 Develop statistical analysis systems and software applications to analyze data required by the program areas covered in the PWS.
- 3.3.1.6 Compile and organize (electronic and/or paper) files for use as program/administrative records and design methods for maintaining up-to-date information.
- 3.3.1.7 Evaluate and develop options for improving on-line data collection, data transfer, and data retrieval capability.
- 3.3.1.8 Provide support in the development, use and building of geospatial coverage for the analyses and display of drinking water supply, source water data. Collect and compile geospatial data that shows relationships between OGWDW programs and other Agency programs, as well as integrate data from outside federal, state, local and private sources.

## 3.4 Environmental Modeling

- 3.4.1 The contractor shall adapt, develop, or utilize environmental models and general modeling techniques to demonstrate potential impacts of contaminants on drinking water quality. All models developed by the contractor under this contract and the associated documentation shall be

submitted as a deliverable.

- 3.4.2 Using and/or adapting appropriate methodologies and/or quantitative techniques, the contractor shall report on the potential impacts of EPA's regulatory and programmatic actions. In support of the findings, the contractor shall provide data and assumptions used.

## **4.0 OUTREACH AND COMMUNICATIONS**

Outreach and communications are the mechanisms by which EPA informs and educates its program partners, stakeholders and the public. Effective outreach and communications clearly convey EPA's messaging to stakeholders and the public on complex environmental issues and health risks. Effective outreach and communications efforts are also persuasive in outlining the benefits of compliance within the regulated community. The contractor shall support EPA's efforts to develop and implement outreach and communications strategies, by developing materials in various formats for a variety of media. To ensure all outputs developed by the contractor are appropriate in scope and content to accurately reflect EPA policy, position and decisions, EPA will review all materials in draft format prior to their distribution and use. In the performance of outreach activities, the contractor shall perform the following tasks:

- 4.1 The contractor shall compile, categorize, summarize and format information for use in public documents, management reports, and educational and briefing materials. The contractor shall accurately present EPA's position and decisions and shall design outputs specific to the audience identified by EPA. Prior to release or distribution of any materials the contractor must have EPA approval.
- 4.2 The contractor shall develop program specific outreach materials to inform and educate the general public, state and local government, and tribes; foreign governments, international organizations; and educational institutions. Such materials may include factsheets, brochures, pamphlets, posters, calendars, course curriculums, case studies, presentations, speeches, journal articles, infographics, blogs or social media content.
- 4.3 The contractor shall develop course materials, and training tools, and shall conduct training for activities and projects within the scope of this PWS.
- 4.4 The contractor shall collect and summarize information from news reports, technical and trade journals, and announcements about innovative case studies, pollution prevention programs, "green" practice and other initiatives relevant to Water programs within the scope of the PWS.
- 4.5 The contractor shall collect, analyze and distribute informational materials in support of the Office of Water's Environmental Justice program.



- 4.6** The contractor shall collect, compile, and analyze information in support of EPA sponsored public and industry peer group networks. When in direct contact with these groups, the contractor's staff shall identify themselves as an EPA contractor, shall not attempt to interpret Agency policy and shall only be present in meetings that require their direct input.
- 4.7** The contractor shall examine and assess EPA and other relevant internet/intranet websites and provide recommendations on improvements in the page design, functionality, content, organization, aesthetics and appropriateness for the targeted audience.
- 4.8** The contractor shall support EPA's Development of strategies, public awareness campaigns, and other messaging to communicate public health issues, environmental concerns, EPA policy and Water Program initiatives to intended audiences.
- 4.9** The contractor shall translate technical and scientific information into plain language messaging for diverse audiences.
- 4.10** The contractor shall assess EPA's messaging for opportunities to employ new or innovative communication approaches.
- 4.11** The contractor shall monitor and evaluate media coverage to assess the impact on agency policies, positions and Program initiatives.
- 4.12** The contractor shall conduct listening sessions to gather feedback and gain buy-in from public and private sector stakeholders.

## **5.0 TECHNICAL WRITING AND EDITING**

- 5.1** The contractor shall draft original and revise EPA provided written materials. When preparing original or reworking EPA provided materials, the contractor shall ensure the materials can be easily comprehended by the audience identified by EPA. The contractor shall assign appropriate level expertise to ensure scientific and technical accuracy. All materials shall accurately present EPA's position and decisions. All materials shall be professionally edited to ensure correct usage of grammar, spelling, syllabification and punctuation. All materials shall meet contract level quality assurance, and where applicable, TO level quality assurance requirements. The contractor shall not distribute or use the content of any material without prior EPA written approval.
- 5.2** The contractor shall prepare EPA provided documents for publication in the Federal Register.
- 5.3** For documents identified for Internet posting by EPA, the contractor shall convert materials to comply with Section 508 of the Federal Rehabilitation Act.

## **6.0 EVENT PLANNING AND LOGISTICS COORDINATION**

The contractor shall provide administrative support for planning and conducting workshops, conferences, meetings, symposia, training, web conferencing (including webcasts and webinars), hearings and seminars. The contractor's support shall include activities during the planning, execution and post session follow-up phases:

- 6.1** Planning: Identifying and securing facilities, arranging travel and lodging; organizing logistics; developing announcements, agendas and presentation materials; registering attendees; securing the services of technical experts; coordinating and shipping of materials and exhibits; and arranging audio/visual services. All travel other than local shall be pre-approved by EPA and in accordance with FAR and EPA acquisition requirements.
- 6.2** On-site: Facilities coordinating, setup displays, facilitate proceedings, record and/or note taking, manage on-site-registration, participation in technical discussions, and troubleshoot and resolve issues.
- 6.3** Post Session: Summarizing and distributing reports and proceedings, compiling and evaluating feedback and complete follow-up activities as identified by EPA.

## **7.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC): DATA QUALITY ACT/INFORMATION QUALITY GUIDELINES REQUIREMENTS**

Technical areas within the PWS will require quality assurance and/or quality control to fulfill EPA systematic planning for environmental information requirements.

### **7.1 Data Quality Act**

The Data Quality Act (also known as the Information Quality Act) requires EPA to ensure that influential information disseminated by the Agency is sufficiently transparent in terms of data and methods of analysis that the information is capable of being substantially reproduced. To support compliance with these data transparency/data reproducibility requirements, EPA may include quality assurance project plans (QAPPs) and deliverables prepared by the Contractor as part of any rulemaking record documentation to be made available to the public. The Contractor may claim information in QAPPs as confidential; if the Contractor chooses to do so, the Contractor shall submit a sanitized (i.e., public) version and an unsanitized (i.e., confidential) version at the time the QAPP is submitted for approval by EPA. The sanitized version shall be included in the public docket for the applicable rulemaking (or other docket record), and the unsanitized version (if provided) shall be included in a non-public (i.e., confidential) portion of the docket (or record).

Information contained in the approved QAPP and other documents prepared by the Contractor for dissemination by EPA shall be transparent and reproducible and meet the requirements of the Data Quality Act for influential information.

EPA's *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency* (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicates that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues. Where applicable, the Contractors should indicate which results were obtained using the tools (e.g., standard operating procedures, checklists, and guidelines) that the Contractor designates as confidential so that the EPA Task Order COR (TOCOR) can easily identify the areas that shall require rigorous robustness checks and document that those checks have been performed. At the discretion of the EPA TOCOR, the Contractors may be requested to prepare pre-dissemination review checklist. If this is required, the EPA TOCOR will notify the Contractor through the TO and provide a copy of the checklist to be completed.

## **7.2 Quality System Requirements**

EPA policy requires all organizations conducting EPA-funded environmental programs to establish and implement a quality system. This is accomplished through a Quality Management Plan (QMP) that documents how the organization structures its quality system and describes its quality policies and procedures, criteria for and areas of application, and roles, responsibilities, and authorities. It also describes an organization's policies and procedures for implementing and assessing the effectiveness of the quality system.<sup>1</sup>

All technical activities performed under this contract must be supported by the Contractor's quality system and documented by the Contractor in a customized QMP that documents how the contractor will integrate quality assurance (QA) and quality control (QC) procedures and plans into the wide variety of technical activities contemplated in this PWS.

In addition, all individual projects under the contract that involve environmental data operations must be supported by a Quality Assurance Project Plan (QAPP) that describes the quality assurance procedures, quality control specifications, and other technical activities that must be implemented to ensure that the results of the project to be performed will meet project specifications.

Requirements governing the customized QMP and QAPPs prepared in support of this contract are described below.

## **7.3 Customized Quality Management Plan**

A **customized Quality Management Plan (QMP)** is prepared in accordance with *EPA Requirements for Quality Management Plans*<sup>1</sup> but tailored to explain how the organization's Quality System will support contract-specific PWS

technical activities involving environmental information and data. Upon contract award, the contractor shall meet with the designated EPA QA manager to discuss whether revisions are needed to the version of the customized QMP that was submitted as part of the contractor's proposal package. If no revisions are required, the Contractor shall add the awarded EPA contract number to the previously submitted QMP and submit it to the EPA QA manager for signature. If revisions are required, the Contractor shall implement the requested revisions, sign the revised QMP, and forward it to the EPA QA manager for signature. Once it is fully approved, the EPA QA manager will forward it to the EPA Contracting Officer for incorporation into the contract.

The contractor shall annually review, and if necessary, revise this customized QMP to ensure it accurately reflects the contractor's organizational structure and quality system throughout the duration of the contract and to ensure its content continues to be valid and applicable to the program over time.

#### **7.4 Quality Assurance Project Plans**

When task orders issued under this contract involve the collection, generation, evaluation, analysis, or use of environmental data/information, the Contractor shall prepare a QAPP in accordance with the following documents:

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<sup>1</sup>*EPA Requirements for Quality Management Plans (QA/R-2)*, March 2001 (Reissued May 2006), EPA/240/B-01/002.

- U.S. EPA QA/R-5, *EPA Requirements for Quality Assurance Project Plans*, March 2001 (reissued May 2006). EPA/240/B-01/003. [https://www.epa.gov/sites/production/files/2016-06/documents/r5-final\\_0.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/r5-final_0.pdf)
- U.S. EPA QA/G-5, *Guidance for Quality Assurance Project Plans*, December 2002, EPA/240/R-02/009. <https://www.epa.gov/sites/production/files/2015-06/documents/g5-final.pdf>

The contractor also may be asked to comply with other guidance when preparing QAPPs for specific types of activities such as the use of existing data, modeling, environmental assessment cost-benefit analyses, economic or environmental surveys, monitoring, generation of GIS data, biological assessments, etc. Examples of such additional QAPP guidance include:

- U.S. EPA QA/G-5M, *Guidance for Quality Assurance Project Plans for Modeling*, December 2002, EPA/240/R-02/007 (<https://www.epa.gov/sites/production/files/2015-06/documents/g5m-final.pdf>)
- U.S. EPA *Guidance on the Development, Evaluation, and Application of Environmental Models*, March 2009, EPA/100/K-09/003 (<https://www.epa.gov/measurements/guidance-document-development-evaluation-and-application-environmental-models>)

- Guidance available in the in New England Regional Library Quality System Documents (<https://www.epa.gov/quality/region-1-quality-systems-documents>; see topics on models and use of secondary data)
- U.S. EPA QA/G-5S, *Guidance on Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan*, December 2002, EPA/240/R-02/005 (<https://www.epa.gov/sites/production/files/2015-06/documents/g5s-final.pdf>)
- U.S. EPA QA/G-5G *Guidance for Geospatial Data Quality Assurance Project Plans*, March 2003, EPA/240/R-03/003 (<https://www.epa.gov/sites/production/files/2015-06/documents/g5g-final.pdf>).

The Contractor shall provide all QAPPs prepared under this contract to the EPA TOCOR in electronic form in both a word processing file and a PDF file. The Contractor shall review QAPPs approved for use under this contract at least annually to ensure their content continues to be valid and applicable to the project over time. Previously approved QAPPs that do not specifically address all of the environmental data operations performed under the Task Order, or that were prepared under a different contract, will require Contractor revision and resubmission for approval. No environmental information/data activities may proceed until a QAPP has been approved by the EPA Quality Assurance Manager.

Unless EPA has accepted arrangements to the contrary, any QAPP that is approved by EPA for a Task Order issued under this contract will be considered by EPA to be available in the public domain and may be distributed by EPA to the public. (See the discussion of “Data Quality Act/Information Quality Guidelines Requirements” above for alternative arrangements.)

The Prime Contractor shall ensure that all parts of the organization performing work under individual Task Orders, including subcontractors (including consultants), are responsible for implementing the applicable EPA-approved QAPPs. The Prime Contractor shall also ensure that all personnel involved in the work have access to the latest approved version of the applicable QAPP and all other necessary planning documents applicable to the work they are supporting.

The Prime Contractor shall ensure that all personnel in the organization, including subcontractors (including consultants), who are involved in each task order, understand the technical and QA requirements applicable to their function prior to the initiation of data collection, generation, evaluation, analysis, or use activities.

The Prime Contractor shall ensure that all personnel, including subcontractors, who develop and review QAPPs prepared in support of this contract have the experience and educational credentials to understand the relevant issues.

## **7.5 Reporting Quality Assurance Progress**

When an approved QAPP is in place for any Task Order issued under this contract, the contractor shall be required to include Statements of Quality Assurance Progress in the contractor's monthly progress reports from the time of QAPP approval until the final deliverable for activities necessitating the QAPP is accepted by EPA.

For each major deliverable submitted under the contract (e.g., Technical Support Documents, Study Reports, Study Plans, etc.), the contractor shall submit a discussion of the QA/QC activities that were performed to support the deliverable, and this discussion shall provide a sufficient level of detail to support EPA's use of the data/information. This discussion may be prepared as a section or chapter of the final document or it may be prepared as a separate QA report that accompanies the technical deliverable.